

IN THE CLAIMS

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Please cancel claims 8-26 without prejudice. Please amend the remaining claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

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1. (amended) A CMOS integrated circuit device comprising:
a plurality of p-channel transistors formed in active surface areas of n-type regions,
wherein the p-channel transistors do not have LDD source/drain regions;
a plurality of n-channel transistors formed in isolated active surface areas of p-type
regions;
gate electrodes for the p-channel and n-channel transistors, the gate electrodes overlying
and being insulated from the respective active surface areas, wherein the gate electrodes for the
p-channel transistors have a width less than a minimum channel length required for the p-
channel transistors;
p-type source and drain regions for the p-channel transistors, each p-type source and
drain region consisting of a low resistivity region;
n-type source and drain regions for the n-channel transistors, each n-type source and
drain region having a low resistivity region and an LDD region;
each gate electrode having a pair of sidewall spacers each having an inner and an outer
portion, wherein the inner portions of the sidewall spacers for each p-channel transistor gate

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16 electrode has a width which, taken on each side of the respective gate electrode for the
17 respective p-channel transistor and combined with the width of the respective gate electrode for
18 the respective p-channel transistor, exceeds a minimum channel length for the respective p-
19 channel transistor;

20 each p-channel low resistivity region located under the outer portion and at least a part
21 of the inner portion of its respective sidewall spacer;

22 each n-channel low resistivity region located under at least a part of the outer portion and
23 a part of the inner portion of its respective sidewall spacer; and

24 each n-channel LDD region extending from its respective low resistivity region to
25 underlie the inner portion of its respective sidewall spacer.

1 2. (unchanged) The integrated circuit of claim 1, wherein the inner portion of the sidewall
2 spacer comprises an oxide.

1 3. (unchanged) The integrated circuit of claim 1, wherein the inner portion of the sidewall
2 spacer comprises an oxide.

1 4. (unchanged) The integrated circuit of claim 1, wherein the p-channel source and drain
2 comprise silicon implanted with BF_2 .

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1 5. (amended) The integrated circuit of claim 1, wherein:

2 the distance between low resistivity regions of the source and drain regions of the p-
3 channel transistor is between the p-channel minimum length and the p-channel maximum
4 length, wherein:

5 the p-channel minimum length is a distance below which the transistor will not
6 operate reliably due to short channel effects; and

7 the p-channel maximum length is a distance above which the transistor will not
8 turn on efficiently.

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1 6. (amended) The integrated circuit of claim 1, wherein:
2 the distance between the low resistivity regions of the n-channel transistor is between
3 the n-channel minimum LDD length and the n-channel maximum LDD length, wherein:
4 the n-channel minimum LDD length is a distance below which the transistor will
5 not operate reliably due to short channel effects; and
6 the n-channel maximum LDD length is a distance above which the transistor will
7 not turn on efficiently.

1 7. (unchanged) The integrated circuit of claim 1, wherein the sidewall spacers have a total
2 width of approximately 500 to 2500 Å.

Please add the following new claims:

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1 --27. (newly added) A CMOS integrated circuit structure, comprising:
2 an n-channel transistor including lightly doped source and drain regions within a p-type
3 region of a substrate; and
4 a p-channel transistor without lightly doped source and drain regions within an n-type
5 region of the substrate, the p-channel transistor including:

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6 a gate electrode having a width less than a channel length of a channel for the p-
7 channel transistor; and
8 first sidewall spacers adjacent opposing sides of the gate electrode and overlying
9 at least a portion of the channel for the p-channel transistor.

1 28. (newly added) The CMOS integrated circuit structure of claim 27, wherein the width of the
2 gate electrode is less than the minimum channel length required for the p-channel transistor.

1 29. (newly added) The CMOS integrated circuit structure of claim 28, wherein the first sidewall
2 spacers have a width which, taken on opposing sides of the gate electrode and combined with
3 the width of the gate electrode, exceeds the minimum channel length required for the p-channel
4 transistor.

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1 30. (newly added) The CMOS integrated circuit structure of claim 29, wherein the width of the
2 first sidewall spacers, taken on opposing sides of the gate electrode and combined with the
3 width of the gate electrode, exceeds the minimum channel length required for the p-channel
4 transistor plus a diffusion distance for implanted dopants forming source and drain regions for
5 the p-channel transistor.

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1 31. (newly added) The CMOS integrated circuit structure of claim 30, further comprising:
2 second sidewall spacers adjacent the first sidewall spacers and overlying source and
3 drain regions for the p-channel transistor

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1 32. (newly added) The CMOS integrated circuit structure of claim 30, wherein the n-channel
2 transistor further comprises:
3 a gate electrode having a width approximately equal to a minimum channel length
4 required for the n-channel transistor; and
5 sidewall spacers adjacent to opposing sides of the n-channel transistor gate electrode and
6 overlying the lightly doped source and drain regions.

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1 33. (newly added) An intermediate structure for use in forming a CMOS integrated circuit,
2 comprising:

3 a p-type region for an n-channel transistor including lightly doped source and drain
4 regions;

5 an n-type region for a p-channel transistor without lightly doped source and drain
6 regions;

7 a gate electrode overlying a portion of the n-type region, the gate electrode having a
8 width less than a minimum channel length required for the p-channel transistor; and

9 an insulating layer over a top and sides of the gate electrode, the insulating layer having
10 a thickness which, taken on opposing sides of the gate electrode and combined with the width
11 of the gate electrode, exceeds the minimum channel length required for the p-channel transistor.

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1 34. (newly added) The intermediate structure of claim 33, wherein the insulating layer forms
2 a mask for implanting source and drain regions for the p-channel transistor.

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1 35. (newly added) The intermediate structure of claim 34, wherein the insulating layer has a
2 thickness which, taken on opposing sides of the gate electrode and combined with the width of
3 the gate electrode, exceeds the minimum channel length required for the p-channel transistor
4 plus a diffusion distance for implanted dopants forming the source and drain regions for the p-
5 channel transistor.

1 36. (newly added) The intermediate structure of claim 35, further comprising:
2 source and drain regions for the p-channel transistor within the n-type region, wherein
3 edges of the source and drain regions are spaced apart from the sides of the gate electrode.

1 37. (newly added) The intermediate structure of claim 36, wherein the source and drain regions
2 are low resistivity regions.

1 38. (newly added) The intermediate structure of claim 33, further comprising:
2 second insulating layer overlying the first insulating layer to form sidewall spacers
3 adjacent the gate electrode upon etching of the insulating layer and the second insulating layer.

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